



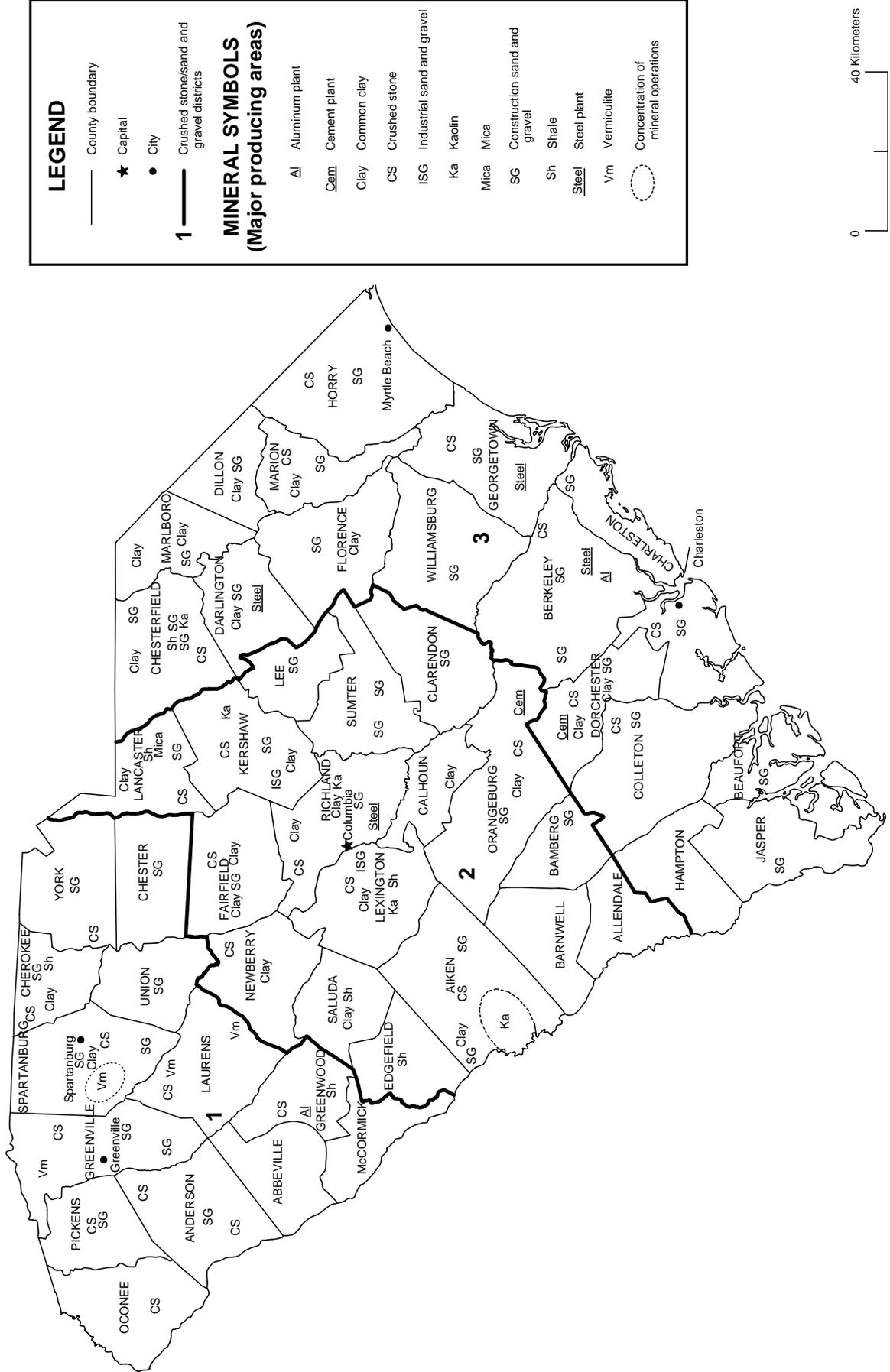
# 2005 Minerals Yearbook

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## SOUTH CAROLINA

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# THE MINERAL INDUSTRY OF SOUTH CAROLINA

**This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the South Carolina Geological Survey for collecting information on all nonfuel minerals.**

In 2005, South Carolina's nonfuel raw mineral production was valued<sup>1</sup> at \$659 million, based upon annual U.S. Geological Survey (USGS) data. This was a nearly 24% increase from the State's total nonfuel mineral value of \$532 million in 2004, which was up 4.7% from 2003. South Carolina was 28th in rank (27th in 2004) among the 50 States in total nonfuel mineral production value and accounted for more than 1% of the U.S. total. [Because data for mica and vermiculite have been withheld (company proprietary data) for 2004, the actual total value for that year is somewhat higher than that reported in table 1.]

A large majority of South Carolina's nonfuel mineral production resulted from the mining and production of construction minerals and materials. In 2005, cement (portland and masonry), by value, remained the State's leading nonfuel mineral commodity, followed by crushed stone and construction sand and gravel. These three mineral commodities accounted for nearly 92% of the State's total nonfuel mineral value, followed, in descending order of value, by industrial sand and gravel, kaolin, and vermiculite.

In 2005, most of the State's nonfuel mineral commodities increased in value, led in particular by increases (descending order of change) in cement, crushed stone, and construction sand and gravel. Small to moderate increases in the production of the top three commodities resulted in relatively large

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<sup>1</sup>The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 2005 USGS mineral production data published in this chapter are those available as of December 2006. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

increases in their values in 2005 from 2004. A 5.6% increase in the production of cement brought about an increase in its value of more than \$55 million, up nearly 23% from that of 2004. Similarly, a nearly 8% increase in crushed stone production led to a \$48 million increase, up nearly 23% from the previous year. [Although data for crushed marble are withheld (company proprietary data); it may be said both production and subsequent value significantly increased.] Construction sand and gravel value also showed a significant increase; with its production rising more than 11%, the commodity's value increased by \$10.1 million, up nearly 29%. Industrial sand and gravel production and value rose more proportionately by slightly more than 10% each, the value of which was up nearly \$2 million. Decreases of \$1.9 million and \$1.5 million, respectively, took place in the commodities of kaolin and vermiculite; dimension stone and gemstones values were unchanged (table 1).

In 2005, South Carolina continued to rank first in the quantities of vermiculite that it produced of two producing States and third of four fire clay-producing States. With cement categorized by type as in table 1, it remained third among producing States in the quantity of masonry cement produced and eighth in the production of portland cement. South Carolina rose to second from third in the production of kaolin, to fourth from fifth in mica, and to eighth from ninth in common clays. Additionally, the State continued to produce significant quantities of crushed stone, construction sand and gravel, and industrial sand and gravel, as compared with other producing States. Primary aluminum and raw steel also were produced in the State but from raw materials that were acquired from foreign and other domestic sources. South Carolina was sixth (fifth in 2004) of 12 States in the production of primary aluminum in 2005.

TABLE 1  
NONFUEL RAW MINERAL PRODUCTION IN SOUTH CAROLINA<sup>1,2</sup>

(Thousand metric tons and thousand dollars)

Mineral	2003		2004		2005	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	425	43,700 <sup>e</sup>	453	49,900 <sup>e</sup>	498	54,300 <sup>e</sup>
Portland	3,150	194,000 <sup>e</sup>	3,110	196,000 <sup>e</sup>	3,270	247,000 <sup>e</sup>
Clays:						
Common	1,060	2,660	1,050	3,350	1,020	3,610
Fire	W	W	1	64	54	892
Kaolin	355	21,700	296	19,600	287	17,700
Gemstones	NA	1	NA	1	NA	1
Sand and gravel:						
Construction	10,100	34,700	9,960	35,100	11,100	45,200
Industrial	655	16,700	719	17,600	794	19,400
Stone:						
Crushed	27,300	184,000	31,300	210,000	33,800 <sup>3</sup>	258,000 <sup>3</sup>
Dimension	9	850	9	850	9	850
Combined values of mica (crude), stone (crushed marble [2005]), vermiculite (crude), and value indicated by symbol W	XX	10,100	XX	(4)	XX	12,600
Total	XX	508,000	XX	532,000	XX	659,000

<sup>e</sup>Estimated. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld value included in "Combined values" data. XX Not applicable.

<sup>1</sup>Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Excludes certain stones; kind and value included with "Combined values" data.

<sup>4</sup>Value withheld to avoid disclosing company proprietary data.

TABLE 2  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED, BY KIND<sup>1</sup>

Kind	2004			2005		
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Number of quarries	Quantity (thousand metric tons)	Value (thousands)
Limestone	6	6,410	\$32,600	3	3,700	\$26,200
Marble	1	W	W	1	(2)	(2)
Calcareous marl	3	W	W	4	4,920	28,200
Granite	23	22,200	163,000	23	25,200	203,000
Total	XX	31,300	210,000	XX	33,800	258,000

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Withheld to avoid disclosing company proprietary data.

TABLE 3  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2005, BY USE<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Macadam	W	W
Riprap and jetty stone	W	W
Filter stone	W	W
Total	762	8,400
Coarse aggregate, graded:		
Concrete aggregate, coarse	W	W
Bituminous aggregate, coarse	W	W
Bituminous surface-treatment aggregate	W	W
Railroad ballast	W	W
Other graded coarse aggregates	11	59
Total	6,130	66,600
Fine aggregate (-¾ inch):		
Stone sand, concrete	(2)	(2)
Screening, undesignated	345	4,240
Other fine aggregates	3,880	24,100
Total	4,220	28,400
Coarse and fine aggregates:		
Graded road base or subbase	(3)	(3)
Crusher run or fill or waste	593	3,790
Other coarse and fine aggregates	3,750	25,600
Total	4,340	29,400
Chemical and metallurgical, cement manufacture	(4)	(4)
Unspecified: <sup>5</sup>		
Reported	16,800	112,000
Estimated	1600	13,000
Total	18,400	125,000
Grand total	33,800	258,000

W Withheld to avoid disclosing company proprietary data; included in "Total."

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Withheld to avoid disclosing company proprietary data; included with "Other fine aggregates."

<sup>3</sup>Withheld to avoid disclosing company proprietary data; included with "Other coarse and fine aggregates."

<sup>4</sup>Withheld to avoid disclosing company proprietary data; included with "Unspecified: Reported."

<sup>5</sup>Reported and estimated production without a breakdown by end use.

TABLE 4  
SOUTH CAROLINA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2005, BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch) <sup>2</sup>	W	W	W	W	W	W
Coarse aggregate, graded <sup>3</sup>	W	W	W	W	W	W
Fine aggregate (-¾ inch) <sup>4</sup>	W	W	W	W	W	W
Coarse and fine aggregate <sup>5</sup>	W	W	W	W	W	W
Chemical and metallurgical <sup>6</sup>	--	--	(7)	(7)	--	--
Unspecified: <sup>8</sup>						
Reported	4,040	29,000	4,840	26,400	7,900	56,600
Estimated	--	--	60	475	1,600	12,000
Total	13,900	106,000	7,990	52,700	11,900	99,000

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes filter stone, macadam, and riprap and jetty stone.

<sup>3</sup>Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), railroad ballast, and other graded coarse aggregates.

<sup>4</sup>Includes screening (undesignated), stone sand (concrete), and other fine aggregates.

<sup>5</sup>Includes crusher run or fill or waste, graded road base or subbase, and other coarse and fine aggregates.

<sup>6</sup>Includes cement manufacture.

<sup>7</sup>Withheld to avoid disclosing company proprietary data; included with "Unspecified: Reported."

<sup>8</sup>Reported and estimated production without a breakdown by end use.

TABLE 5  
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2005,  
BY MAJOR USE CATEGORY<sup>1</sup>

Use	Quantity	Value (thousands)	Unit value
	(thousand metric tons)		
Concrete aggregate and concrete products <sup>2</sup>	4,530	\$19,900	\$4.39
Fill <sup>3</sup>	880	1,780	2.02
Other miscellaneous uses	163	602	3.69
Unspecified: <sup>4</sup>			
Reported	3,190	13,800	4.33
Estimated	2,380	9,180	3.86
Total or average	11,100	45,200	4.06

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunitite sands.

<sup>3</sup>Includes roadbase and coverings.

<sup>4</sup>Reported and estimated production without a breakdown by end use.

TABLE 6  
SOUTH CAROLINA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2005,  
BY USE AND DISTRICT<sup>1</sup>

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products <sup>2</sup>	553	3,380	1,690	6,860	2,350	9,800
Fill	--	--	205	474	610	1,120
Other miscellaneous uses	--	--	--	--	163	603
Unspecified <sup>3</sup>						
Reported	22	93	--	--	3,160	13,700
Estimated	--	--	86	332	2,290	8,850
Total	576	3,470	1,980	7,670	8,580	34,100

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes plaster and gunite sands and road base materials.

<sup>3</sup>Reported and estimated production without a breakdown by end use.